

Hobbies

WEEKLY

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A MECHANICAL ROCKING HORSE

THIS design of rocking horse is of the safety pattern, and of simplified construction, at least the horse portion is. The completed job would make a welcome present for any youngster, and comparatively inexpensive to make, especially considering what the commercial article would cost to buy now. There are no difficult joints to baffle with, nothing that any amateur woodworker need fear to tackle.

Floor Stand

A front and end elevation of the stand are given in Fig. 1 with most of the dimensions. Any sizes of timbers not given will be found in the cutting list at the end of the article. The floor framing consists of one long member, with two shorter cross ones. These are cut from 1in. thick deal. The cross ones are nailed to the long member at 6ins. in from each end.

Fit across at true rightangles and position the nails to leave 1in. square at the centre of the joints free—here a mortise is to be cut to receive the posts. Cut the mortise 1in. square through both. The work of cutting these through can be much simplified by boring a 1in. hole through first with a centre bit to remove most of the wood.

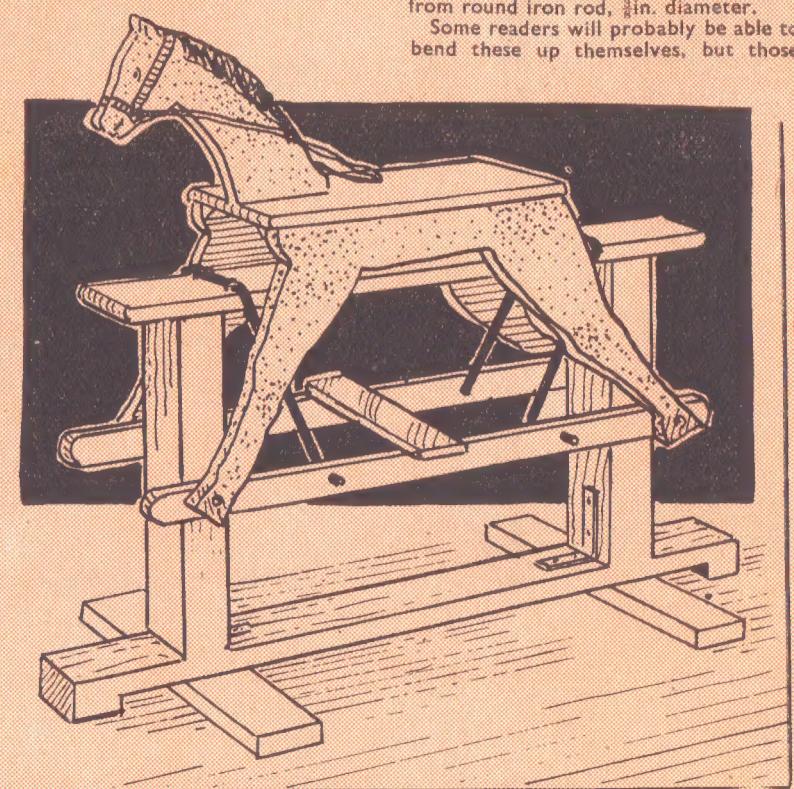
End Posts

The posts are cut from wood 3ins. square and are sawn at their bottom ends to form 2in. long tenons to fit the mortises. At each end of the long floor member glue and nail 2in. wide strips of 1in. thick wood. The detail sketch (C) in Fig. 2 explains the above details.

Now glue the posts in position and strengthen these parts with a steel angle bracket to each post, as shown in Fig. 1. Some strain comes on the posts when the rocking horse is in use.

Across the top of the posts nail a board of 1in. deal, 3½ins. wide, as at (A). On this the rocking irons, now to be dealt with, are fitted. The irons are bent up to the shape shown at (D) in Fig. 2, from round iron rod, ½in. diameter.

Some readers will probably be able to bend these up themselves, but those



doubting their ability, or perhaps lacking the tools, would be better advised to get them shaped up at a local smiths, or iron works. They must be accurate as to dimensions. They are fitted on board (A), at about the positions shown in the side view of the stand.

They must be fitted to swing quite freely. The usual fitting to allow of this is made of sheet iron or brass, bent over the iron rod, U shape, with a flange each side for screwing to the board. An

The parts of the horse are shown drawn over 2in. squares. About the simplest method here is to draw the requisite number of 2in. squares on a sheet of cartridge paper and then copy the diagram as accurately as possible, full size. Cut the parts out with scissors, lay on the wood and pencil their shapes on by running the pencil round. A soft pencil is best for this job. The parts can be cut out with a bow saw, or keyhole saw.

position. The sides, with legs fitted on, are then glued and screwed underneath the seat board where shown by the dotted lines. Glue the head in position, screw underneath through the seat board into the head above, one screw each side of the tenon.

Between seat board and side glue

CUTTING LIST

Floor member—1in. by 3ins. by 3ft. 8ins.
Floor members (2)—1in. by 3ins. by 1ft. 6ins.
Posts (2)—3ins. by 3ins. by 1ft. 7ins.
Board A—1in. by 3½ins. by 3ft. 2ins.
Strips B (2)—1in. by 2ins. by 3ft. 2ins.
Seat board—1in. by (?) by 1ft. 11ins.

FOR THE HORSE

1in. by 9in. board. 7ft. run.
1in. round metal rod for rocking irons,
about 5ft.
One pair 5in. steel furniture brackets

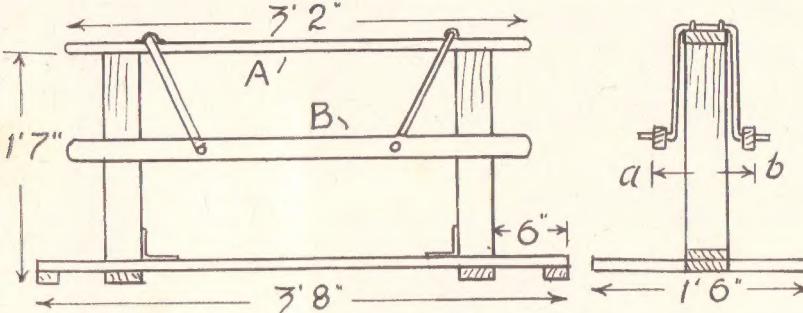


Fig. 1—Side and end view with helpful dimensions

alternative fitting here would be a pair of iron staples to each, driven over, not of course tightly, but loose enough to allow of a free swinging movement to the irons.

At the lower ends of these a wood bar each side, (B), is to be slipped on. These can be 2in. wide strips of 1in. wood, with holes for the irons bored in at the spots shown, some 11ins. from each end. Across these nail a footboard, 4ins. wide and about 12ins. long. Parts (B) should now swing easily at a push without scraping against the posts. Get this satisfactory.

The Horse

Now for the horse. Quite a plain affair this requiring no intricate carving, or building up. First cut the seat board, shown at (F) in Fig. 3. This is cut from 1in. board to the length given.

For the width (c - d), measure across the rocking strips, as shown in the end view, Fig. 1, the actual distance (a - b) being taken, and the thickness of wood to be used for the legs, etc. being added to it. For instance, if a - b measures 7ins., and 1in. wood used for the legs, etc., then width c - d will be 9ins.

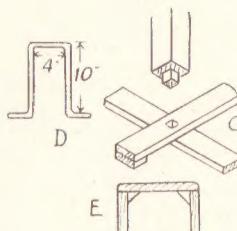


Fig. 2—Post and rocker details

Place the horse's head on the seat board and pencil round the tenon on its lower end. Chisel out the mortise and see a tight fit ensues. The legs are to be grooved into the side pieces shown above them in the drawing. Lay the tenons of the legs at the angle shown by the cross lines on the sides, and run a pencil along the edges to mark the exact width of the tenons on the side pieces. Here saw and chisel out grooves across to half the depth of the wood.

Reduce the tenons on the legs to half thickness and glue and screw the legs in

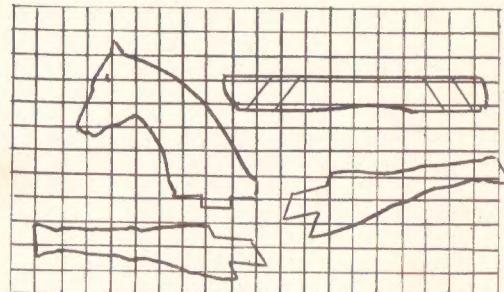


Fig. 3—Outline of horse's head and legs

triangular strips of wood to strengthen this part, as seen in detail sketch (E) in Fig. 2. This completes the horse portion, so far as the work of construction comes in, which should be screwed to strips (B).

Cleaning and Painting

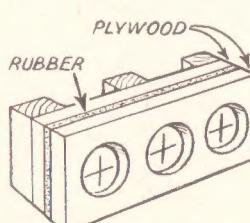
The stand and horse can now be cleaned up and painted. Any nails should be punched well home and stopped. The stand can be painted, or varnished as preferred. The horse should be painted in either case, brown or grey, the latter colour is usually preferred. A little refinement can be added here by first painting the horse white, or very light grey, and then stippling it in darker grey in patches.

Add the harness over the horse's head, which can be just narrow strips of American cloth, and a pair of reins of leather to grip hold of. A strap, as used for fastening down luggage, would make quite excellent reins. Paint or enamel the metalwork black. If you can find a strip of fur, glue this to the horse's head for a mane. Details of the features, by the way, can be put in black with a fine brush.

An excellent finish to the horse is a coat of clear varnish, and of course, an upholstered pad for a saddle can be added as a finishing touch.

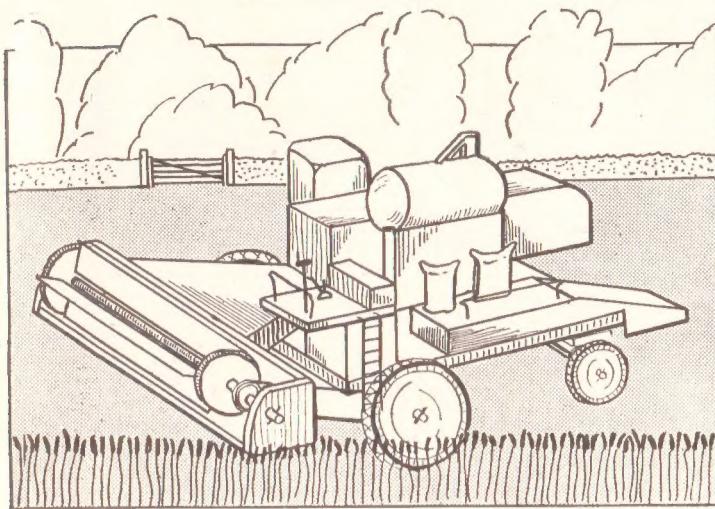
Useful Gadget

SOME readers may like to know of the following useful gadget for holding cloths in the workshop or garage. Take two pieces of 3-ply 1 ½ins. wide by whatever length you want. Hold them together and cut holes 1in. in diameter and ½in. apart in the middle of the width. Take a piece of motor car inner tubing and glue it firmly between the 3-ply pieces and nail all three together. With an old razor blade, cut ½in. slits at right angles, in each visible disc of rubber. Mount the whole on blocks to keep the rubber 1in. or so off the wall, and the job is done. The cloth is pushed into the



cloth sticks firmly in place. It is quick, easy, and does not tear the cloth.

There is really nothing difficult in attempting A MODEL HARVESTER



THE interesting addition to our farm set shown here will need no introduction to those of our readers who live near the corn-growing parts of the country, or to those fortunate enough to spend some of their holidays there at harvest time. Originally brought over here from the vast prairie-farms of America, these huge harvesting machines are now coming more and more into use here, so that no model farm set is really complete without one.

They are, indeed, a fine sight to watch, as they roar round the field, not only cutting the growing corn but threshing the grain out of it at the same time, so enabling the modern farmer to accomplish as much work each day as formerly took much longer. Apart from helping to ensure our food supply for the next year.

How it Works

There are, of course, a number of different kinds of combine-harvester now being used, and our little model is based on one of the most usual patterns. This type of machine is self-propelled with a powerful petrol engine. As it is driven round the field the corn is pushed down to the cutting knives by the sails (or 'reel' as the farmer calls it) and is carried up an elevator to the threshing box.

From here the corn and chaff are carried by another elevator up to the bagging and sorting drums, whilst the straw is delivered out at the back of the machine. On the bagging-up platform stands another man who manipulates the sacks and as each becomes filled with corn or chaff he pushes it off the machine down the delivery chute.

General Construction

These various parts are shown on the general plan, at Fig. 1. Our little model cannot, of course, copy all the intricate pieces that go into the making of these big machines; but a lifelike appearance is added to the finished model by the reel revolving as the toy is pushed along. Most of the pieces are cut from the solid and glued or screwed to the base. The construction is quite simple, and none of the pieces is larger than can usually be found amongst the handyman's offcuts from larger work.

The Chassis

The carriage itself consists of a piece of board 5ins. long and 4ins. wide. It will be seen from Fig. 2 and Fig. 3 that the larger pair of wheels is at the front, on a

fixed spindle. The smaller pair are at the back, and are on a loose frame for steering which is held to the base with a nut and bolt. If rubber-tyred wheels are available, these give a good finish to the model; but quite a realistic imitation can be made with wood if diagonal cuts are made round the edges, to suggest the tread of the tyres, and the outside $\frac{1}{8}$ in. of each wheel and the edges are painted black to look like rubber.

The Threshing Box

The body of the threshing box is made from a block $4\frac{1}{2}$ ins. by $1\frac{1}{2}$ ins. by $1\frac{1}{2}$ ins., as shown at Fig. 4. About half-way along its length a piece $\frac{1}{2}$ in. wide is sawn off, and the two top corners at the back are rounded off. This rear part forms the cover for the straw-delivery machinery.

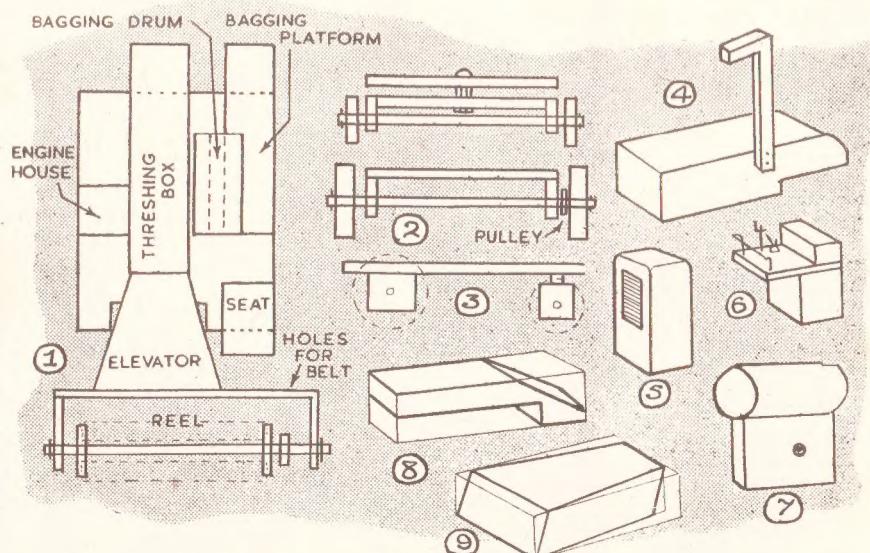
An elevator is cut L shape from a piece $2\frac{1}{2}$ ins. by $\frac{1}{2}$ in. and held to the main block with glue or screws. Note that the short return end is pointing down slightly, since this has to meet the top of the bagging drum.

The Engine House

The Engine House is cut from wood 1in. by 1in., and is $2\frac{1}{2}$ ins. high, as shown at Fig. 5. The four top corners are rounded off, and later, when we come to the important work of painting the model, the radiator is painted in with black paint, on one side, as shown.

The Control Seat

Fig. 6 shows how the control seat is fixed up. It consists of a 1in. cube, a strip glued on top $1\frac{1}{2}$ ins. by 1in., and a piece for the seat 1in. long of $\frac{1}{2}$ in. by $\frac{1}{2}$ in. With a little ingenuity and a length of stiff wire a little rail, a ladder, and the gear handles can easily be made up, and fitted into holes drilled in the blocks. A



little more of the wire, with a disc of thin metal, forms the revolving handle, by which means the operator raises and lowers the reel and cutting blades at the front of the machine.

The Bagging Drum

Two parts form the bagging drum, as shown at Fig. 7. The base is a piece 2ins. by $1\frac{1}{2}$ ins., about $\frac{1}{4}$ in. thick, and the top piece is a 2in. length of 1in. dowel. The dowel is grooved to allow the base to fit into it a little, and at the back the top is cut away slightly to allow the L shaped piece of the threshing box to fit into it.

The bagging-up platform is made from a piece 1in. by 1in. and is 4ins. long. The cutting out is quite simple, as shown at Fig. 8. Two little rails, also made from the stiff wire, are fitted into holes drilled in the block. A realistic touch is given to the model by making one or two little sacks and filling them with sand or sawdust, to stand on the platform, as shown in the sketch of the finished model.

The Reel

We now come to the reel and elevator, which is in three parts. The revolving part consists of a piece of $\frac{1}{4}$ in. dowel, two discs 1in. in diameter glued on the dowel, and four pieces of stiff card, to form the sails, glued into slits cut in the discs. The housing for the

reel is made from thin plywood or stout cardboard.

The elevator casing (that carries the corn, when it is cut, up to the machine above) is made from a block 3ins. long,

CUTTING LIST

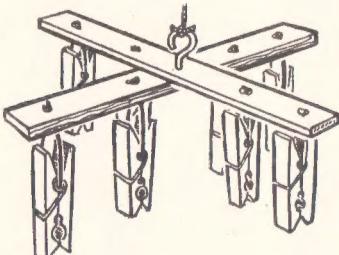
No. of Pieces	Size	Description
1	5" x 4"	Base.
2	Discs 1 $\frac{1}{2}$ " diam.	Front wheels.
2	Discs 1" diam.	Rear wheels.
2	1" x $\frac{1}{4}$ " x 1"	Front wheel supports.
2	$\frac{1}{2}$ " x $\frac{1}{4}$ " x 1"	Back wheel side supports.
1	3 $\frac{1}{2}$ " x $\frac{1}{4}$ " x 1"	Back wheel top support.
2	5 $\frac{1}{2}$ " of $\frac{1}{4}$ " dowel	Carriage spindles.
1	4 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	Threshing box.
1	2 $\frac{1}{2}$ " x $\frac{1}{4}$ " x $\frac{1}{4}$ "	Threshing box elevator.
1	2 $\frac{1}{2}$ " x 1" x 1"	Engine house.
1	1" x 1" x 1"	Seat block.
1	1 $\frac{1}{2}$ " x 1" x 1"	Seat, horizontal.
1	1" x $\frac{1}{2}$ " x $\frac{1}{2}$ "	Seat.
1	2 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x 1"	Bagging machine base.
1	2" of 1" dowel	Bagger top.
1	4" x 1" x 1"	Bagger platform.
1	6" of $\frac{1}{4}$ " dowel	Reel spindle.
2	Discs 1" diam.	Reel ends.
1	1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x $\frac{1}{2}$ "	Reel housing sides.
2	5" x 1 $\frac{1}{2}$ " x 1"	Reel housing base.
1	5" x 1" x $\frac{1}{2}$ "	Reel housing back.
1	3" x 2 $\frac{1}{2}$ " x $\frac{1}{2}$ "	Reel elevator.

2 $\frac{1}{2}$ ins. wide and $\frac{1}{4}$ in. thick (Fig. 9). The ends of this piece are then cut on the slant, to the extent of $\frac{1}{4}$ in. and it is

Small Clothes Aire

THIS is another gadget that will appeal to the ladies. The cross bars are each about 2ft. long, and about 1in. by $\frac{1}{4}$ in. section. You can buy the laths already cut to size, and they only want sanding.

A brass screw-eye is put in the centre.



It is a good idea to place a small wooden draughtsman taken from some cheap set, under the lower lath, and drive the screw eye into this as well, so that the lower lath does not work loose.

The pegs are simply tied on, holes being drilled in the laths for this purpose. This is a useful gadget for drying stockings and gloves.

Just like the Picture

THE pictures on the fronts of seed packets are certainly highly attractive and guaranteed to buoy up the hopes of amateur gardeners. Usually the seeds are planted and the empty paper packet

is stuck on a stick at the end of the seed row, to get rotted away by sun and rain.

One gardener saves all his seed packets and trims them neatly so that he has two panels—one with a picture of the plant and the other with the printed instructions (on some of the latest packets there are additional notes referring to the food value of the plant, with recipes in the case of unusual vegetables).

These are pasted neatly in a book—a loose-leaf one so that one can arrange the names of the plants in alphabetical order.

The result is, in effect an encyclopaedia of plants, with cultural directions and lovely pictures in colour.

A Useful Stool

A BOY Scout Commissioner once told the writer of these notes 'Scout H.Q. and Rover Dens seldom have decent chairs.' The making of a chair requires the use of a bench fitted with a good vice, also some large cramps. These facilities are often lacking to amateurs who, too, may also lack the skill to tackle the making of a chair.

Why not make a stool? A dozen, in fact. An honest-to-goodness plain stool with a 'backwoods' look. First obtain a piece of tree trunk, about a foot in diameter, and with a cross-saw cut off neat slices 2ins. thick. If you do not know how to use a cross-saw now is the time to find out. It brings out those biceps! If you have no means of sawing the log yourself, a local sawmill will do the job cleanly and fairly cheaply.

glued one end to the reel housing and the other end to the front of the block that forms the threshing box.

To get this into position it is necessary to cut a piece out of the front of the base board, as shown, just wide enough for the elevator case to rest in.

The Drive

It will be seen that the reel is not quite in the centre of the reel housing. This is to leave room for a pulley wheel on the same spindle, from which a belt of cotton or thin string connects it to another pulley wheel on the front spindle of the chassis, as shown at Fig. 1.

Unless special pulley wheels that will fit the dowel-spindles are available, it is usually easiest to make them up from three thicknesses of thin wood or cardboard. In this way a good deep groove can be provided, and if the two pulley wheels are lined up carefully before being glued into place, there will be no trouble with the belt coming off when the model is pushed along.

One of the things that makes the sight of these big machines at work so attractive, is the very bright colours in which they are often painted. So model-makers who are handy with a brush can really let themselves go with bright red, blue, or yellow, not forgetting to outline each piece of the machine with neat black lines about $\frac{1}{8}$ in. from the edges. (250)

The legs are about 1 $\frac{1}{2}$ ins. diameter, with the lower ends rounded off. The most important part is fixing the legs to the top. This is done by what is known as 'fox' wedging. If it is done well, it is impossible to get the leg out again. With an auger, about 1in. diameter, bore a hole about two-thirds of the way through the top.

Now taper the tops of the legs so that they fit the holes a trifle on the loose side, but not too much. Make a little wedge, and cut a slit in the top of the leg, a trifle too small for it. Obviously when the whole lot is assembled and driven well and truly home, the wedges expand and cause the leg to grip tightly. If your wedge is too tight, however, it will split the top of the stool.

In order to be kind to the seats of trousers, you might try upholstering the tops of the stools or covering them with leather.

If you are unable to obtain a suitable log, a thick piece of planking will be quite suitable. Your first few stools will probably be rather rough, but eventually you will recapture that pride of craftsmanship that the machine age has not yet killed.



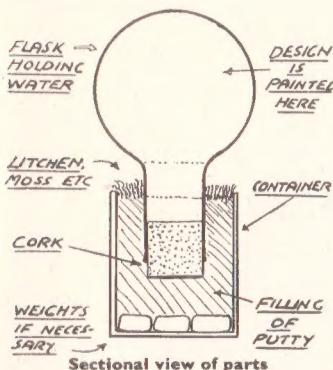
A novelty attraction you should attempt is THE WITCH BOWL

HAVE you ever heard of a 'witch bowl'? Well perhaps not, but it is an intriguing little novelty for an occasional shelf or mantelpiece which any handy person can put together, especially if of an artistic bent. 'Witch Bowls', too, make good presents.

The photographs on this page show both sides of a completed bowl. The general idea is that there is a round top upon which there has been painted a small series of flowers, leaves, or even a tiny scene. Looked at from the painted side the effect is quite neat and attractive, but when the bowl is reversed, and you view the design through the round top, a vastly magnified impression is given.

A Long-neck Flask

The amount of magnification is almost startling and if the scene, or whatever it is, has been really carefully executed, the impression is produced of looking into a little wonder world hidden away within the bulb.



Now as to making one of these novelties. The top round section or bulb is one of those fairly long-necked flasks which can be bought for chemistry work from dealers in such equipment. Should you not know an address the Editor will be able to help in this respect and give you a dealer's name.

These flasks are made in a whole range of sizes and the particular dimension you use is a matter of choice, but a flask with a diameter of 2ins. to 3ins. is very convenient to work with and does not look too big amongst surrounding ornaments.

Filled with Water

Magnifying power is given by filling the flask right up with perfectly pure water, the neck then being stoppered with an ordinary, but tight-fitting cork. The flask is held inverted in the lower container, which may be any neat jar, by a surround of putty finished off on top with lichen (or similar green stuff) intermixed with some bright pebbles.

This container must of course be

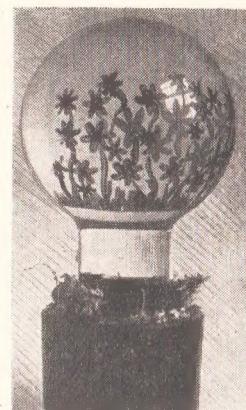
stable enough to hold the flask firmly without danger of it tilting over and therefore should not be too light or have a too small base. Great stability if necessary can be given by placing a few lumps of lead in the bottom of the jar before putting in the putty and stones.

Now about painting the design. Transparent oil paints only should be used, as when the bowl is viewed from the magnifying side the brilliant colours, which are half the charm, are given by the light shining through the design. Transparent oil colours in small tubes can be obtained from any artist colourman. For putting on, the pigments are thinned with a medium like Canada Balsam which makes the colours 'take' well on the smooth surface and not run into blobs.

Decoration

The finest of brushes should be used and some readers might find it convenient to work looking through a reading glass. Draw out the design first on a piece of paper and experiment with sunflowers and bulrushes and the like, till a satisfactory lay-out has been obtained.

Should you not be too good at painting, a scrap or tiny piece cut from a greeting card can be pasted to the glass, face in.



The painted front



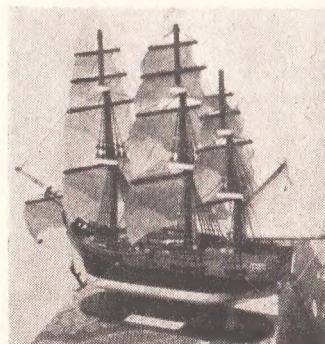
Magnified pictures on the back

This leaves the plain paper back looking out and on this another scrap of the same size is pasted—facing out. Viewing through the glass, the inner scrap will be seen greatly magnified, but of course much darker than with painting as the light will not be coming through the colours.

If sending a witch bowl as a present through the post, care must be taken in packing. Padded round about they will travel all right in a strong box, but if you have any doubts try and deliver the completed bowl yourself, if at all feasible.

A Reader's Double-Size Galleon

NOT an ordinary replica of the famous 'H.M.S. Bounty,' although made from the patterns of our popular design. You see, its maker, Mr. R. J. Abbott of Lower Castle Road, Gibraltar, built it double the size given in the plans, and is the sixth model made from our designs, in 18 months. Mr. Abbott gives the hint that small washers from an old piano make excellent pulley blocks, when filed round the edge. So if you have an old piano handy—.



An ideal gift to make for a lady friend is this KNITTING HOLDER

THIS is a really handy article which will be greatly appreciated by the women-folk of your home—a holder and carrier for any knitting that may be in progress. It is quite simple to make and forms an ideal gift for any lady.

The sketch of the completed carrier gives a very good idea of how the finished article looks, but there is some choice in size. The dimensions given are for a 15in. holder, but the writer has seen one of 17ins. made with every success. Quite a big number of knitting-needle types will fit snugly into a 15in. length.

Main Portions

To make, first required are the two ends as (A), Fig. 2. Cut from any pieces of nice wood, $\frac{3}{8}$ in. thick, they are 4 $\frac{1}{2}$ ins. by 3 $\frac{1}{2}$ ins. and have the corners rounded to a curve of $\frac{1}{2}$ in. radius. The marking out of the corners is done by feeding a halfpenny up to them and drawing round it—a halfpenny being just 1in. in diameter. The detail at (B) shows one of the finished ends.

Next comes the main body of the carrier (C). This is originally a rectangle of card cut to 15ins. by 17ins. upon which is firmly glued a covering of leatherette.

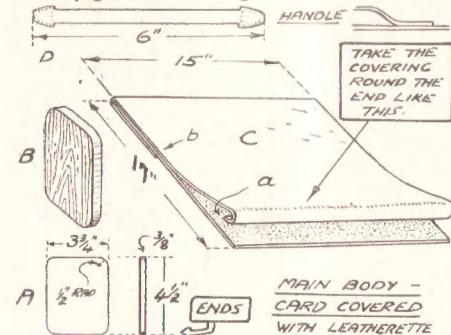


Fig. 2—Detail of parts needed

Or you can use some similar tough, but thin and pliable material. It is good if this material can cover both sides, but as a minimum it must entirely cover one side of the card and be caught round the one end as (a) and taken 7ins. round the other as (b).

The correct preparing of this composite sheet is really the secret of making a good carrier. Plenty of fairly weak glue must be used for affixing the leatherette and it has to be well rubbed into the card (and on to the back of the leatherette) to temporarily make the sandwich dampish throughout.

When the gluing has been done (a flat brush being best for this) the leatherette is stretched over the card and the composite sheet is put for a little time under pressure. It is then watched carefully and taken from the pressure for fitting just before it is completely set and dry. It will then be stiff but still having a

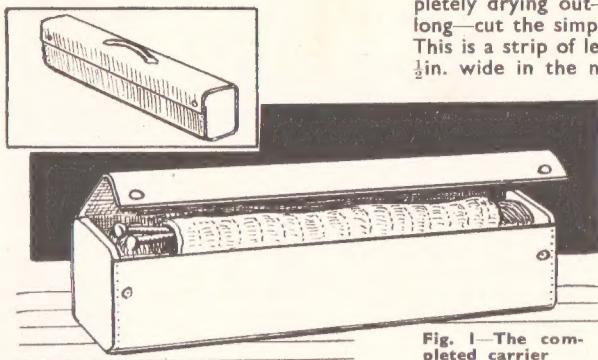


Fig. 1—The completed carrier

certain pliability which allows it to be curved without cracking.

The putting together of end-pieces and sheet is carried out as Fig. 3, and the central composite has to be carried round the sections (A) and secured by a close series of short but fairly large-headed 'pins'.

A start is made from the edge of the 'composite', where the covering is only just turned in for a little, and at a point just below the curve of the ends. Much

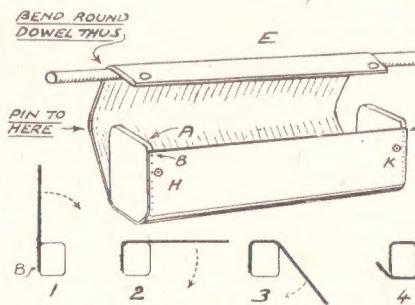


Fig. 3—Assembling the bag parts

depends on giving the sheet a good straight bend at the correct places. Used as shown a length of dowel is a very useful help in doing this.

Pinning the Ends

Commence with the two pins (B) and (B1) and then, giving a curve over the dowel down the entire length, take the sheet round the first corner as (2). Curving again with the dowel negotiate the second corner as (3) and so right round the shape as (4). The pins must be put in progressively as the curving proceeds so as to get the sheet quite tight against the wood.

The pinning finishes at the point shown, the rest of the material forming the top and flap (E). As will be appreciated it is all a matter of careful bending and pinning to get a nice-shaped box, without twist or other fault.

While the case is on one side com-

pletely drying out—which will not take long—cut the simple handle (D) Fig. 2. This is a strip of leather, 6ins. long and $\frac{1}{2}$ in. wide in the middle, but widening out to two rough arrow-head or heart shapes at the ends so it can be easily stitched on. A length of old strap slightly wider than $\frac{1}{2}$ in. and trimmed down in the centre will do well for this.

Press Studs

When all is quite dry (and not before) put on the two press studs (H) and (K). These are placed close up to the wood of the end-pieces to give the best possible rigidity when pressing the two halves of the studs together. The main body of the carrier it will be found is stiff enough not to require any further fastening in the middle.

Lastly, put on the leather handle you have just made. This is held in position by stitches round the wider shapes at either end. The fixing can be done with an ordinary sewing machine if the stitches are made slowly by turning the flywheel by hand instead of using the handle. For the fitting, the lid must be temporarily straightened out.

The holder is now complete bar any finish you wish to apply. The leather, except for being well polished, can remain as it is, but the wooden ends should be stained and polished or polished alone if two pieces of nicely grained wood have been used.

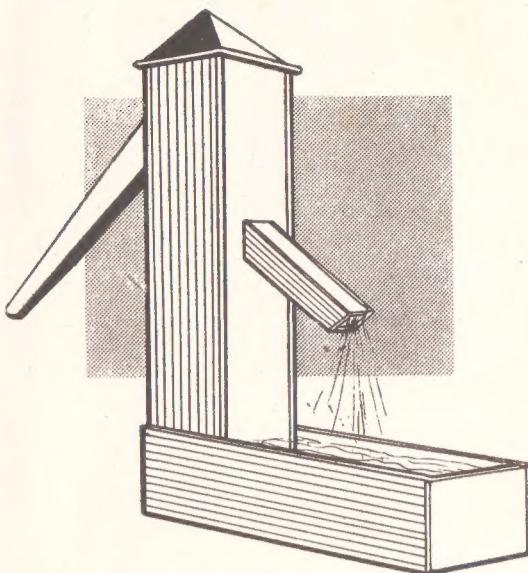
Should you have made the holder for a present and it has to go through the post it is best to fill the inside with tightly wrapped paper to prevent the danger of crushing in the fairly heavy knocks parcels often receive in transit. The paper—to give a 'presenty' effect—should be of a nicely coloured variety.

A more complete present would be made in some cases, where the requirements of the recipient are well known, by sending the carrier fitted with a set of knitting needles and wool.

Model Hedges

FOR painting model railway hedges, etc., dissolve $\frac{1}{2}$ oz. gum arabic in 3ozs. water and add emerald green. Then strain off and use as paint.

A novelty you can easily make is this WORKING MODEL PUMP



HERE is always more interest attached to the making of a model when it is of the workable type. The little village pump described in this article is an excellent example of a working model. When carefully made it will pump water in an extremely efficient manner and will continue so long as the pump handle is kept working.

It is quite a simple model to make, but special care must be taken to get all parts cut exactly to size to ensure a perfect fit. The model works on exactly the same principle as the pumps which are so common in country districts, so now let us have a few words on how it does actually operate.

The Mechanism

First the trough is nearly filled with water, then the pump handle is lifted which forces the air out of the inner chamber. Pushing the handle down now raises the slide valve, and it is this action that draws some of the water out of the trough through the fixed valve.

When the handle is again lifted this valve will close, at the same time opening the slide valve and letting in some of the water. By lowering the handle now the slide valve is again raised, and this time the water in it should reach the spout hole and start to flow out into the trough, thus completing the cycle of events.

Careful Construction

This may sound rather complicated, but in actual practise it is really quite a simple operation. The making of this model is a very good test of skill in cutting out and fitting together the various parts. It is very necessary accurately to mark out and then care-

fully cut all parts, especially the slide valve, as the successful working of the model will depend on this fitting well.

It does not really matter what kind of wood is used as the entire model will have to be painted. A hardwood, however, or plywood is to be preferred for the job—the closer grain giving a smoother finish, thus enabling the slide to operate with greater ease. With the exception of the baseboard having a thickness of $\frac{1}{2}$ in., the entire model can be made of $\frac{1}{4}$ in. wood.

Commence by making the shell of the actual pump, the internal measurement of which is exactly 2 ins. square. In order that the pump may work perfectly it is necessary to be very exact with this part—the inside must be exactly square and all sides measure 2 ins. all the way from top to bottom. The details at Fig. 1 are quite helpful for construction.

Back and Front

Cut two pieces of wood $10\frac{1}{2}$ ins. long and 2 ins. wide for the sides, one piece $10\frac{1}{2}$ ins. long and $2\frac{1}{8}$ ins. wide for the front, and one piece 11 ins. long and $2\frac{1}{8}$ ins. wide to form the back.

Drill a $\frac{1}{4}$ in. hole in the front piece for the water outlet about 4 ins. down from the top. There is also another hole or slot right at the bottom of this piece of wood for the water to enter from the trough. A slot about 1 in. long

and $\frac{1}{2}$ in. high would probably be best.

Make a short spout having an internal measurement of $\frac{1}{2}$ in. square and about 3 ins. long to fit over the outlet hole. It should slope at an angle of about 45 degrees and is glued to the front piece and secured with two small pins.

Handle Bearings

Cut a slot at the top of the back piece of wood and fix the two brackets to form the bearings for the pump handle. It would be an advantage to make this handle of somewhat thicker wood, and $\frac{3}{4}$ in. is quite suitable for the purpose. The side view shows the shape and angle to cut the handle lever. The distance between the two pivot holes is 2 ins. and the length of the handle part from the main pivot hole is 6 ins. A piece of stout wire can form the pivot, but this must be made so that it can be taken out when needed.

At this stage the two sides and front can be glued and pinned together, leaving the back to go on after the fixed valve has been fitted into position.

A piece of wood 2 ins. square and having a $\frac{1}{4}$ in. diameter hole drilled in the centre is required for the valve seating. The valve is made by hinging a piece of thin rubber on top of the board so that it allows the water to be drawn up through the hole and then closes by the weight of water on top. A piece of cycle or motor cycle inner tube cut plenty large enough to well cover the hole is fastened at one end by a couple of small tacks.

The exact position for the fixed valve is not important—from $1\frac{1}{2}$ ins. to 2 ins. up from the bottom would be about right. This piece should be well glued and tacked in position; and this advice applied to all other joints in order to

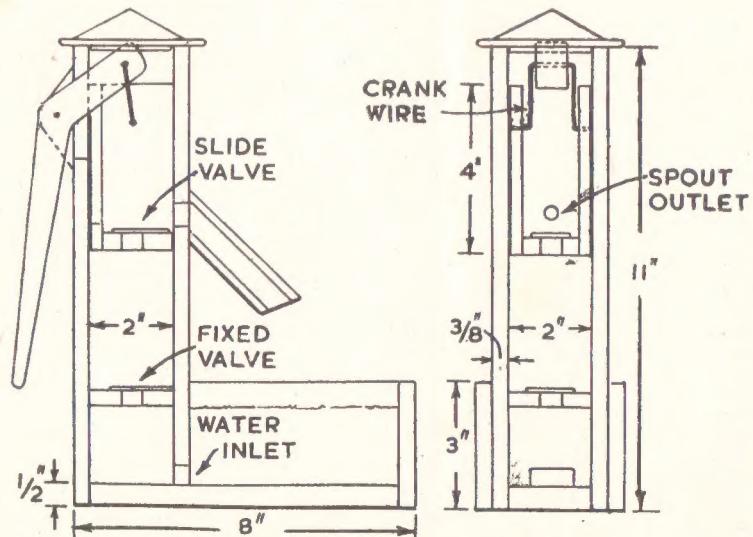


Fig. 1—A side and end view showing construction and sizes

make the model quite tight, otherwise it may not function correctly.

Slide Valve

The slide valve should be the next part to make, and special care must be taken over this. It must be a sliding fit in the 2in. square tube, but should not be too tight. The slide takes the form of a three-sided box, the fourth side being open to allow the water to flow out of the spout, while the valve in the bottom is made exactly the same as the fixed valve.

A good length for the slide valve is 4ins. but this is not important. The pump will be more efficient in operation if the slide is 'packed' similar to a motor car cylinder. A narrow groove about $\frac{1}{8}$ in. deep is cut round the slide near the base and a piece of felt or similar material fastened with a few fine panel pins.

The connection with the pump handle is made by a piece of stout wire bent into the shape shown in the front view.

The length for this is best found by experiment. When the pump handle is down, the slide is at its highest position and the bottom should be nearly level with the spout hole, thus allowing all the water to pour out.

The back of the pump tube with the handle attached will have to be lightly screwed in position for the measurements to be worked out. It will be found that by taking out the pivot wire of the pump handle, the slide and handle can be lifted out of the tube together, which is helpful in forming and adjusting the cranked wire.

Water Trough

Very little skill is needed in the making of the remainder of the pump. The water trough needs two sides 8ins. long and 3ins. wide; a piece 2 $\frac{1}{2}$ ins. long and 3ins. wide for the front, and the base which is $\frac{1}{2}$ in. thick, 7 $\frac{1}{2}$ ins. long and 2 $\frac{1}{2}$ ins. wide.

The top of the pump can be left open,

but it would look more finished if a cap is fitted as shown. This is made to lift off to enable the slide to be taken out if needed.

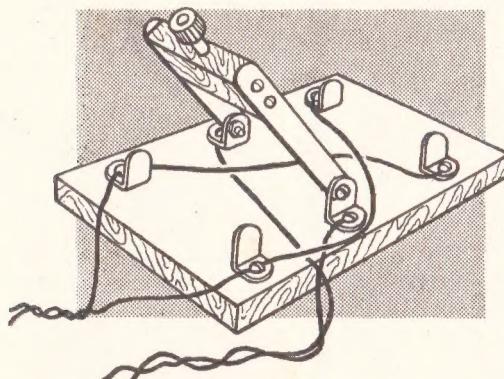
Painting

Before painting see the inside of the tube and also the slide valve is glass-papered quite smooth. Then give the entire woodwork two thin coats of good oil paint. The woodwork of the two valves should be painted before the rubber is tacked down.

Another point to remember is that the back of the pump has not yet been fixed in position, so as to enable the inside of the tube to be painted. When this piece is fixed, it can be made watertight by putting a little soft putty round the join, or even running some paint in and screwing down tightly immediately and allowing to dry thoroughly.

It is quite possible to make all the other joints in this manner instead of using glue if you prefer. (254)

For use with electrical motors or models make A REVERSING SWITCH



THOSE who have made up an electric motor or use one for driving models will find it useful to be able to reverse the motor at will. To accomplish this, a special switch is necessary, but this switch can be made up from oddments.

Making the Switch

The drawing at Fig. 1 indicates the form the switch takes. Two metal strips are pivoted by means of small bolts on the angle brackets marked 2 and 5. A piece of wood is fitted between the ends of these strips so both work together, and they can contact brackets 1 and 4 or 3 and 6, according to which way the small knob (which is screwed to the wooden piece) is thrown.

A small baseboard 1 $\frac{1}{2}$ ins. by 2 $\frac{1}{2}$ ins. and about $\frac{1}{8}$ in. thick is used for the switch. The six brackets can be bent up from tin or brass and are held in place by wood

screws. Brackets 1, 3, 4, and 6 do not have holes (as have the centre brackets) but are curved slightly so that the contact strips can press between them.

The small wooden piece will need to be about $\frac{1}{8}$ in. by $\frac{1}{8}$ in. by $\frac{1}{8}$ in. Small screws or tacks hold the contact strips to this piece. The strips themselves are about 1 $\frac{1}{2}$ ins. long and $\frac{1}{16}$ in. wide. The switch should move each way easily, but without looseness. If necessary, bend the brackets a little to assure good contact is made.

The detail at Fig. 2 illustrates the connections, and no difficulty should arise if the wires are joined on just as shown. 'A' is the wiring for a permanent

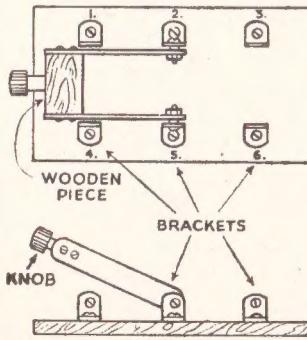


Fig. 1—Plan and side view

magnet motor. That is, a motor which has a horseshoe, permanent magnet for its field (or fixed) magnet, as many small

motors have. The connections are numbered to agree with Fig. 1 and when the switch is upright the motor will be 'Off'. Thrown to one side the motor will run 'Forward'; while moving the switch knob over to the other side will bring the motor into 'Reverse'.

Another Type

Where the motor has a field magnet which is not permanent, but wound with wire and magnetised from the battery, the connections shown in Fig. 2 at 'B' are used. The simplest way to wire up here is to locate the two ends coming from the field winding and connect them to points 2 and 5.

Now connect points 4 and 6 to the parts in the motor where the ends of the field were originally connected. After putting on the two short leads from 1 to

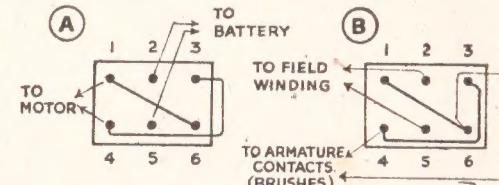


Fig. 2—The electrical connections mentioned

6 and 3 to 4 the motor can be set rotating either way, by moving the switch.

With the latter type of motor, the reversing switch does not provide an 'Off' position, so the battery should be disconnected, or the usual on-off switch used.

Save space and expense by undertaking these ideas for FURNITURE CONVERSION

WE should not despise some of the old bits of furniture we see at the junk shop for sometimes they can be just the thing for us to turn into a modern home unit. The old version of the sofa can be modernised by the handyman and made not only into a useful and comfortable place to sit or rest, but it can also be made into a very handy place to keep all manner of goods.

Presuming the springs are still intact and in place you need do little more than re-cover it perhaps. The end can be covered in with panel board with cut-out at the bottom. This will strengthen the legs. A framework as shown at Fig. 1 can then run the full length and take two odd drawers which can be picked up at the dealers.

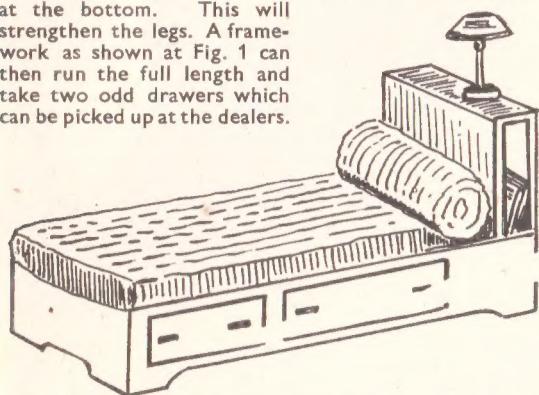


Fig. 1—A convenient reading rest from an old sofa

There is no need to put in a floor, but only the runners for the drawers. If the drawers do not fill the whole space then fill in the gap by leaving the panel board. Remove the old type handles and add some of the new types of moulded wood. You can add another short leg in the centre if it is needed.

It is the back and the head which may be unsightly and this can now be removed as you have strengthened up the structure all round. In place of the head, build in the panel illustrated and with the shelf at the top and finishing panel fitting down to the couch.

This will make a very useful place for a reading lamp and a home for papers and other journals. It will also prevent you having to get any other form of addition to the upholstered part.

Model of Florence Nightingale's Coach

THIS realistic model is copied from the actual carriage used by Florence Nightingale (The Lady with the Lamp) in her humane work of nursing in the Crimean War, 1854 to 1856. It can be completed in wood and card from the patterns with this issue and the Kit of materials (No. 245 Special), price 6/7 from Hobbies Branches or post free 7/4 from Hobbies Ltd., Dereham, Norfolk.

As the whole of the old framework has been covered and presuming you have carried the job out in plywood or panel board you can now stain it to your own liking.

Bed Light and Books

Having a light over the bed, books in plenty and close at hand is the envy of most people. The idea seen at Fig. 2 was first planned to cover a disused fireplace, but it is a good scheme and could be carried out in the average boy's bedroom. The main piece is the panel at the head of the bed and this should extend to

from the back of panels and glued to the side board. Allow space for making the bed. A special bed head fitment can then be fitted on the head panel. Choose the type which distributes the light in a narrow panel as this is better than a bright direct light.

Corner Dressing Table

We sometimes find that there is not all the room we need perhaps in the 'box' room when it has to become a bedroom. Therefore the idea of building this corner dressing table can be carried out quite simply with plywood or

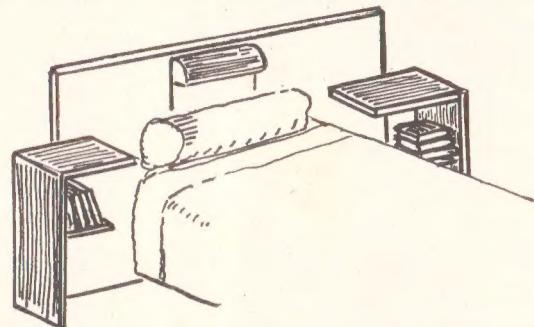
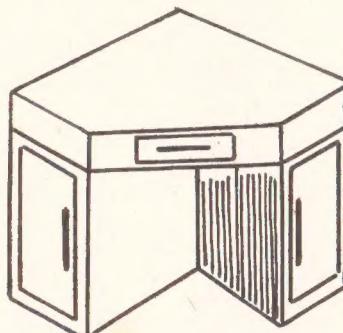


Fig. 2—A fireplace cover with book rests and overhead light



A space-saving corner table and stool

about 9ins. on either side and cut so it forms the back of the bookshelves.

The shelves are kept quite simple and made from 1in. wood. They are screwed

hardboard. As shown at Fig. 3 it is first constructed to the wall with 1in. by 1in. wood.

By this means it will allow two quite useful cupboards which open well out of the way on either side. These run back on one side to the wall and on the other to the side of the first cupboard.

This is the most simple plan.

One drawer is fitted and kept a little narrow as there is not space for it to run back too far. When completed add the modern wood handles, and keep all the edges flush, which is the modern trend.

Colouring can follow the general scheme of the room in which it is kept, and should be of glossy enamel.

Tuck-away Stool

Not only can we save on the actual corner fitment but if you follow the construction of the stool this will take up no space when not in use as it fits into the aperture under the table. Design the cut-away at the base and make the lid to take off as this will then serve as a home for all the slippers or other oddments. If made separate you can cover it with damask or some similar materials.

Although a little expensive one can get plastic sheet in 1in. thickness cut to measure and this would make a splendid finish.

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All the necessary hints for those making JIG-SAW PUZZLES

THIS is the second and concluding article on a popular pastime for anyone with a fretsaw. The puzzles can be made simple or difficult, large or small, cheap or costly. Let us consider the matter of cutting.

There is no hard and fast rule about shapes themselves, so that when the pencil marks have been rubbed off lightly, nobody can tell whether you have actually sawn to the cutting line or run off a little. This does not mean, of course, that you can be quite haphazard in your cutting.

The saw must be controlled so that if it goes up to another piece at rightangles, it must not run into the opposite part and so leave an unsightly sawcut. For this reason, the various curved lines are simpler.

Experimental Work

Until you have become more experienced, the work may seem a little slow, particularly in the link pieces type, because here you have to constantly keep moving the wood to produce the curves, the narrow necks and the 'swollen' pieces with nicely rounded lines. As mentioned previously it is worth trying out a small simple piece of work first, to get the 'hang' of the work on a part which can be thrown away without undue loss if spoiled.

The handframe, of course, must be kept strictly upright all the time so the saw cuts evenly and vertically at all pieces. You will realise that if this is not done, the resulting piece of wood will have sloping edges and so be wedge shaped. In consequence, it will not slip into place easily, and may even become stuck in its surrounding part.

Machine Work

The machine user, of course, does not have this trouble so much, although even here it is easy to sweep round a curve only to find the saw is cutting at a slight angle. In every case, the wood must be held close to the saw and firmly on the table. By maintaining a steady up and down stroke without trying to force the saw through the wood too hard, you can proceed evenly and gently.

There will not then be the annoying 'jump' of the wood from the table, and its consequent breakage of either the saw or the wood itself. With the fingers laid flat along the wood, you get a better purchase on the board than if holding it down only with the finger tips.

Hints on Cutting

Do not forget that the picture will be rejoined when the parts have been cut out, so that a wide sawcut should not be made. Use a fine sawblade, therefore, which will cut away as little as possible of the actual picture itself. Commence the cutting from one corner, gradually

extending your operations across the picture.

As each part is cut, lay it aside, thus building up the subject again in its actual jigsaw parts. If it is likely you are unable to complete the whole thing at one sitting, put the spare parts on a piece of wood which can act as a tray for you to take away and bring back, when next you start on the subject. It will only mean waste of time if you jumble all the parts and have to sort them again when you restart work. The straight outline edge of the picture should be cut first.

Cleaning the Back

When the whole of the work of cutting has been completed, the underside must be cleaned up with glasspaper to take away any saw burr. To do this, lay a piece of stiff card or wood over the picture, turn the tray holding it right over, and you will have reversed the material, bringing the plain wood uppermost. A good plan is to make a frame of waste wood round the outer edge of the puzzle, in order that you may glasspaper it without shuffling the parts about unduly.

If the saw has not been pressed forward too hard, there will be very slight burr, but if there is, it may also be due to the unsatisfactory plywood which you have used. This is a point to bear in mind when buying the actual boards, because some ply is much more loosely knitted together than others. If possible, try a piece with a sawcut to test this before beginning.

The parts being all cleaned, the work is virtually completed, and it only remains to find some useful container in which the actual picture parts can be

housed. The ideal is a large flat box, on which a duplicate picture of its contents can be pasted. This again is a point to think of when you are buying in the first place. If you have a box suitable, you will need two pictures—one to cut and one to put on the box cover.

Failing boxes, the jig-saw can be kept in little 'sack' containers made of flowered cretonne, with the neck of the sack hemmed for a piece of ribbon with which to draw the whole thing tight. If you can get hold of new and fairly large milk cartons, these can also be converted into containers with simple decoration pictures pasted on the outside covering any advertising. Here again, piece of coloured ribbon threaded to form a handle, finishes the receptacle suitably.

Fancy Boxes

In any case, the parts should be kept together, and even chocolate boxes can be used for the purpose, their outer surface being covered with some of the fancy paper or doll's house paper now obtainable. If you are proposing to make these puzzles as presents, you can add a suitable greeting label pasted to the top to allow for the wording which you wish to include.

We mentioned earlier, the question of supplying shopkeepers, and one or two points in this may be worth bearing in mind. The shopkeeper, of course, could be shown a sample and given a price at which you could offer them. This price must be quite cheap, because he has to re-sell with a profit, at a price which will appeal to the public. The standard of cutting must be quite high, and the finish to any box or container be attractive and colourful.

For Selling

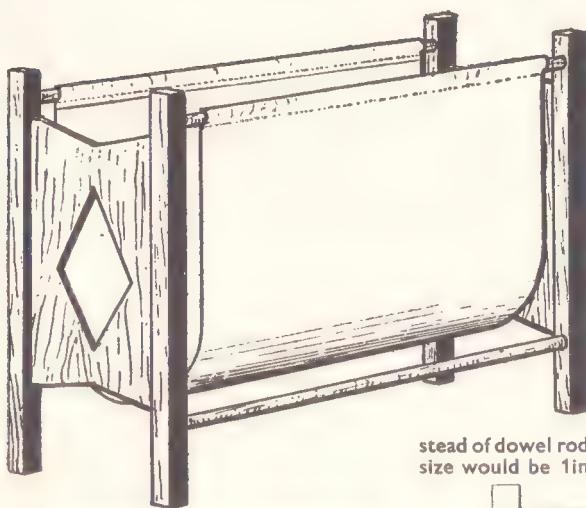
The stationer or bookseller who supplies you with the pictures, may be interested in their re-sale as jigsaws, but it is advisable to take him a sample completed so that he can see exactly what he is buying. Then, of course, you must be careful to keep the standard of the rest of the work up to the original sample.

Allow yourself plenty of time for the cutting, and obtain a date from the shopkeeper by which he must have the actual puzzles delivered. He may not want them all at once, or you can even suggest that if he sells a certain number and wants more, you can supply them within a named period.

Thus, cutting jigsaws is a pleasant and profitable occupation, and the subject should be considered by the craftsman, for the enjoyment of himself or his friends, or as a sideline by which he may earn a few shillings. The matter, as we said in the first instance, requires forethought and the gathering together of the various few parts required for the interesting operations.



This simple stand of wood and fabric makes a useful NEWSPAPER RACK



stead of dowel rod if preferred. A suitable size would be 1in. wide and $\frac{1}{8}$ in. thick.

NEWSPAPERS and magazines lying about in various places can be very untidy, besides which it is most annoying to have to hunt about when a particular copy is needed. It is much nicer to keep them all together in a neat little rack where a special copy can be found at a moment's notice.

The newspaper rack described here is simple to make and also forms quite an attractive piece of furniture. It can be made of a wood that will match an existing suite of furniture and even the design could be slightly modified to harmonize with it. The fabric container is very accommodating in taking odd shape publications easily.

Suitable Materials

The kind of wood to be used must be left to the discretion of the maker, although one of the recognised hard-woods is to be preferred. The measurements given are for a rack suitable for the average size newspaper or magazine but can be altered to suit any special requirements.

The four legs are cut from square wood and are 14ins. long. If made of a hardwood 1in. square would be sufficient, but they will need to be 1½ins. square to provide extra strength if a softwood

is used. Dowel rods of $\frac{1}{2}$ in. diameter are cut to form the top and bottom rails and are let into the legs to a distance of $\frac{1}{2}$ in. As the length of the finished article is 16ins., these rods will have to be 15½ins. long. Make them a fairly tight fit in the legs, then it will only be necessary to use a spot of glue to secure them in position.

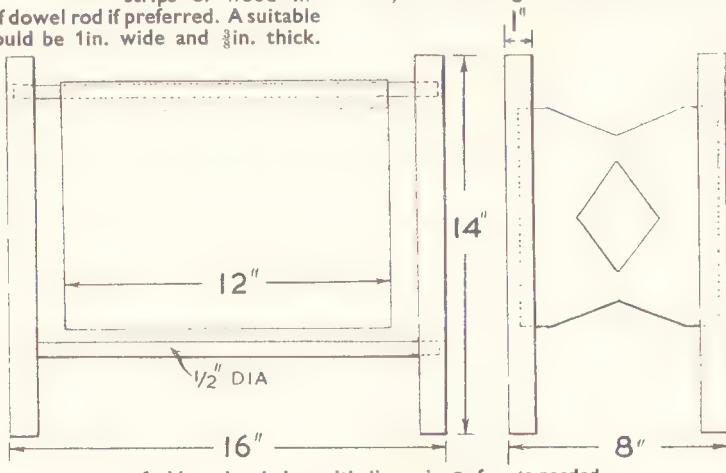
The bottom rails could be made of flat strips of wood instead of dowel rod if preferred. A suitable size would be 1in. wide and $\frac{1}{8}$ in. thick.

Plywood of good quality is very suitable for these side panels if desired. Instead of making the ends of solid panels another method would be to use either dowel rods or thin strips of wood. Three bars at each end would be needed in order to make it strong enough, the top and bottom ones being about 1in. away from the side bars so as not to weaken the legs.

Variation

Another very pleasing variation is to make the top of the rack about 2ins. wider than the bottom, or you might even consider making it the reverse way.

When all the joints are glued tight and have set hard, the rack is glass-papered smooth and the wood is then ready for finishing. This can be done in



A side and end view with dimensions of parts needed

They are glued into slots cut to a depth of about $\frac{1}{2}$ in.

These two side pieces are held in position at the desired width (which can be about 7ins. or 8ins.) by flat panels of wood which form the ends of the rack. The wood used for these should be of good quality, as there will be quite a strain especially when the rack is full of papers. Panels $\frac{1}{4}$ in. thick will be sufficient provided the legs are grooved to a depth of from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. Only a thin film of glue will be needed to fix them if they have been made a tight fit.

quite a variety of ways—stained and french polished, varnished or enamelled, whichever takes your fancy.

Fabric Bag

The completion of the rack is carried out by sewing the material chosen to hold the papers, on to the two top rods. Any fairly strong fabric is suitable for the purpose—it can be a piece of deck chair canvas, hessian, casement curtain material or anything else of a similar nature.

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Stamp Collecting—(Continued from page 13)

It is rather difficult to go into the various regions of China which have at different times issued stamps—in a great number of cases for only a very short time. You will certainly need to have a good catalogue in order to pick out the overprints which were put on the stamps to indicate the various regions they came from.

In this connection it would be quite good enough if you had an old out-of-date catalogue. That is to say, one which is

not so old that it was issued before the states became stamp issuing. But unless you want the catalogue to compare the very latest prices with those of a year or so ago then you should be able to buy a catalogue say three or four years old at a much cheaper rate than a new one.

Let us take a glance at the stamps of China as a case in point. Overprints have been put on to these stamps to make them ready for use in Formosa (Taiwan), Kirin and Heilungchang (Manchuria),

North Eastern Provinces (also Manchuria), Sinkiang (Chinese Turkestan), Szechwan Province, Yunnan Province, and Tibet.

That seems rather a formidable lot to contend with, and as a suggestion to the beginner it would be best to have the suspected stamps all together on a page, then later on to place them in special pages as knowledge comes.

A straightforward and simple working model DOLL'S HOUSE LAMP

HOW pleased the owner of a doll's house would be to possess a miniature standard lamp that lights up just like the one in her own drawing room. Instructions for making such a lamp are given below in conjunction with various illustrations.

For the base from hard-wood $\frac{1}{4}$ in. thick cut two pieces, one 2ins. square and the other $1\frac{1}{2}$ ins. square. In the centre of the larger piece bore a hole $\frac{3}{8}$ in. in diameter, and in the smaller a hole 8in. in diameter (see Fig. 1).

Carefully glue the two pieces together, clean up with glasspaper and chamfer off the edges.

When quite set, drill an 8in. diameter hole at the joint between the two pieces of wood, pointing into the large recess on the bottom. This is for the flex to pass through. Another hole $\frac{1}{8}$ in. in diameter is drilled through the top section about 8in. from the centre hole.

The Central Pillar

The bulb holder is held in position by means of a brass or mild steel rod 4ins. long and $\frac{1}{8}$ in. in diameter. At a distance of $\frac{1}{2}$ in. from one end and $\frac{1}{2}$ in. from the other end, cut a thread to take an $\frac{1}{8}$ in. whitworth nut. On the end threaded for $\frac{1}{8}$ in., screw a nut as far as it will go. Push this end through the hole in the base and secure with another nut. A second nut is added to form an electrical connection inside the recess of the base. The construction is clearly seen in Fig. 2.

The Bulb Holder

The bulb must be of the small screw type used in flash lamps, but the glass part must, however, be spherical. Suitable brass bulb holders can be obtained from one of the cycle stores. These bulb holders have a small brass

base which is held to the main section by a screw. This is removed as it is not required for the model.

The top end of the pillar which has been threaded for $\frac{1}{8}$ in. will be found to fit this screw hole tightly, and the bulb holder should be screwed on to the pillar until it penetrates sufficiently far inside the holder to form a contact for the bulb.

Electrical Connections

For the electrical connections obtain a length of plastic covered single strand wire about 2ft. long. This is sold for wireless connections and is made in various colours, white being most suitable for this model. Connect one end of the wire to the side stud on the bulb holder, and twist round and round the pillar like a spring until the whole length of the pillar has been covered. The loose end is now passed through a small hole in the top section of the base.

These connections can now be tested by connecting the loose end of the plastic wire to one terminal of a battery, joining the central pillar to the other terminal of the battery with a piece of fine electric wire, and putting in a suitable bulb. Make any adjustments that are necessary.

The whole lamp standard can then be painted in gold colour, or any other shade to suit the doll's house. When thoroughly dry obtain a length of the thinnest twin flex bell wire that can be bought. Pass one end through the hole in the side of the base, sepa-

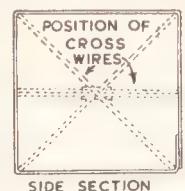


Fig. 3—Parts of the wire frame

rate and bare the leads and connect one to the plastic wire and the other to the centre pillar.

Wrap a little insulating tape round the joint between the flex and the plastic wire, and push the whole well into the recess at the base of the lamp. The other end of the flex is for connection to the battery supplying the doll's house.

Lamp Shade

The shade is built up on the same lines

as those used in the home. The frame is made from copper wire, preferably tinned, about $\frac{1}{32}$ in. thick. Start by making a full-sized drawing of each section as shown in Fig. 3. Two square sections will be required, two sections to form the top and two soldered together to form the clip by which the frame is held to the bulb.

Cut and bend the wire to shape, leaving an extra $\frac{1}{8}$ in. for overlap. Cut the clip section $\frac{1}{8}$ in. longer than required and trim off after fixing. The sections are now soldered together. This can best be done by using a solder paint with flux included and applying heat, using a bunsen burner or spirit lamp. The parts to be jointed must be held together with a pair of long-nosed pliers.

Clip and Cover

Make the square sections first and then join the top sections by soldering the upright parts to each corner of the square frames. The clip is made by soldering the two pieces together, afterwards opening the rings about $\frac{1}{8}$ in. at the bottom and finally soldering them to the top square section of the frame. The rings must be pointing downwards

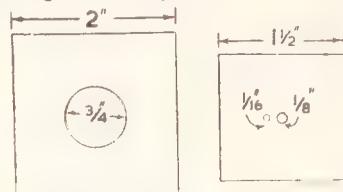


Fig. 1—Sections of the base

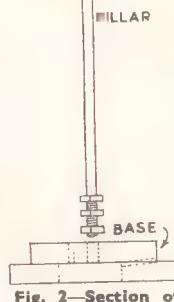


Fig. 2—Section model

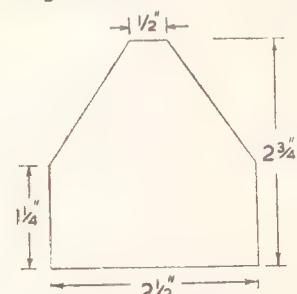


Fig. 4—Shape of shade panel

and in the centre of the frame.

The cover for the frame is made from a piece of coloured silk. Cut four sections to shape as shown at Fig. 4, and sew each of these together, keeping the stitches $\frac{1}{8}$ in. from the edge. Trim, turn inside out and stitch to the frame, finishing by trimming with braid or fringe.

The lamp is made to a scale of approximately 1in. to equal 1ft., but these measurements can be varied slightly to suit individual doll's houses. (230)



SINCE the centre of world thought at present is Korea it would appear to be a suitable time to have a few notes on the stamps of this area. Since so much has appeared in the Daily Press about Korea everyone should know exactly where it is to be found and also just what it looks like on the map.

Korea first issued stamps in 1885 which was some 45 years after the introduction of the penny post in this country and also a great many years after most other countries had adopted cheap adhesive stamps. Twenty years later, in 1905, the Korean postal service was amalgamated with that of Japan which, of course, meant that Japanese stamps were in use after that date.

Since Korea was a stamp-issuing country for only 20 years and also as her population was less than twenty million (most of these being engaged in agriculture) it is not surprising that one does not meet with many Korean stamps. As readers of *Hobbies Weekly* already know, some countries are fashionable, but Korea is not one of them. If it was a fashionable country then the stamps would be worth considerably more than they are.

During her 20 years as a stamp-issuing country Korea issued about 70 specimens. Of the two stamps which are illustrated here the smaller one was issued in 1900 and the larger in 1903. The 1900 issue was printed in the stamp printing bureau of the Korean administration at Seoul while the other was engraved and printed at Paris by the French Government works.

From 1900 Japan has maintained post offices in Korea and the stamps she used were the current Japanese with an overprint of two characters at the



Korean issue of 1900



Japan shows a map in 1936



Manchuria crop soya beans



Korea issued this in 1903

Russian Forces marched into Korea, then, of course, the stamps which up to that date had been Japanese, were issued by the occupying authorities. The United States of America were for the area south of the 38th parallel north latitude and Russia for the area north of that line.

57 Varieties

Since February 1946 the number of stamps issued for the southern area, that is the area occupied by the United States is no less than 57. That is that in 3½ years there has been nearly as many stamps issued as was issued in the previous 20 years. The northern part has not had nearly so many as that.

Close to Korea we find Manchuria and this republic did not issue separate stamps until 1932. Of the stamps that have been issued since then none can be called really interesting although two will come under the category of quaint.



A large North Mongolia stamp with reindeer

Issues from KOREA

The 1942 set which was issued to commemorate the 10th anniversary of the foundation of Manchuria shows one value—the 6 fen bearing a design of women dancing rather like a chorus in Gilbert and Sullivan's opera 'The Mikado'.

Then, in 1940 they issued a stamp to commemorate the foundation of Japan—it was the 2600th anniversary. The design of one of the set is entitled the 'Dragon Dance'.

The 1936 set shows a picture of a wagon load of soya beans and that is the specimen that you see illustrated here, because it may serve to remind readers of one of the places from which

we get soya beans. It is the bean from which the flour is made and used at Christmas time to give the flavour for almond icing on the cakes. A great many of the stamps have had maps on them, in fact the map of Manchuria is the favourite theme for the stamps of that country.

North Mongolia or, as it is also called, Tannou Touva Republic, issued stamps first in 1926. In 1927 she issued the largest and most curious set that any country has ever issued: stamps of all shapes and sizes and with some quaint pictures on them.

Mongolia

Look at the last illustration. It is supposed to be a North Mongolian farmer riding on a reindeer, yet the stamp of just slightly lower denomination shows a farmer riding on a horse. Then, in the same set, we have a camel caravan, a mountain goat, a stag, archers, and a girl carpet weaver. Quite a variety of subjects for a set of stamps and certainly a variety of methods of transport.

By the way, these stamps are quite cheap, though it is hardly likely they will ever rise very much in value so readers should not waste money on purchasing them except as curiosities.

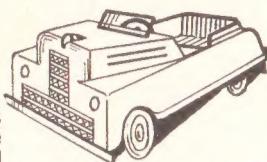
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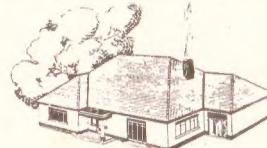
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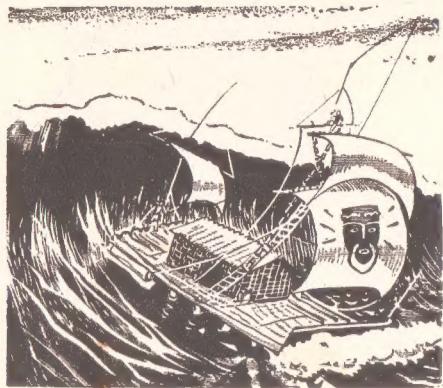
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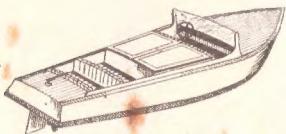
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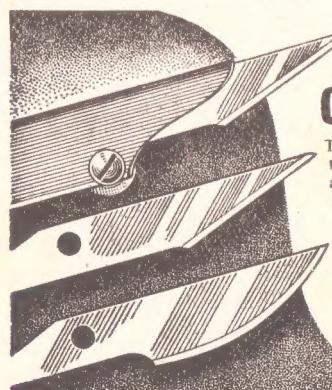
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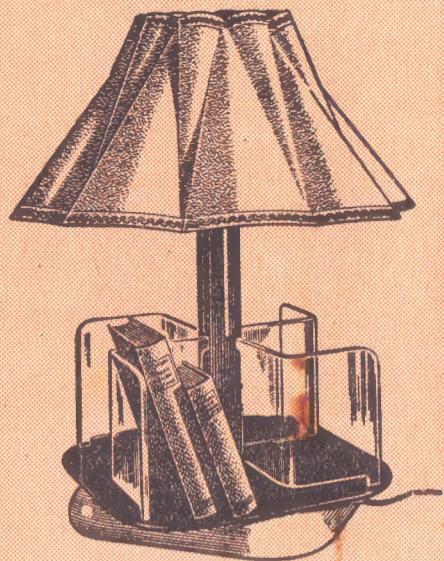
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